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# TOWARDS A STRATEGIC POSITIONING METHOD FOR IT MANAGEMENT

*Research-in-Progress*

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## Abstract

*Strategic IT management (SITM) has evolved from the often reactive management of a company's technology provider to steering a service-oriented partner of the business. Consequently, IT executives need to adapt their management methods. Our research suggests a strategic positioning method for IT management as the first - and often missing - phase of a related SITM cycle.*

*We followed design science research principles to examine the relevant literature and conduct a set of case studies to investigate the constituents that contribute to strategic positioning. We used this empirical work to capture the complex social dynamics of SITM in the field. The theoretical foundations of our research are strategic IT management and organizational method engineering.*

*The Information Strategy Assessment (ISA) method, introduced in this paper, builds on our finding that social dynamics are the most important constituent of a successful strategic positioning project. We use this insight to design our method's principal processes as well as to describe certain social dynamics in the group of actors involved in SITM. The ISA method also shows the outputs that are generated from the related group processes.*

*This research-in-progress paper provides IT executives with a method that supports their efforts for an emancipated, yet aligned, SITM in a corporate context. The ISA method not only acknowledges IT organizations' contemporary role, but also provides researchers with insights into SITM's social dynamics as a basis to improve explanations and recommendations regarding of this domain's complex technical, decisional, and social processes.*

**Keywords:** strategic IT management, group decision making, design science, strategic positioning, social dynamics, method

## Introduction

In a corporate context, strategic IT management (SITM) used to focus on the design, implementation, and operations of information technology and systems. Today, this technology-oriented strategizing along the “plan, build, run” paradigm has moved to the background (Feridun and Rodosek 2003). Consequently, SITM’s focus has changed: managing IT today is analogous to managing a company within a company, i.e. corporate IT has become a provider in its own right (e.g., Earl and Sampler 1998), and, at times, even a strategic weapon (Weiss et al. 2006). However, a company within a company requires management skills beyond those needed to “plan, build, run.” Despite these changes in SITM, Galliers (2004) points out that IS research on this area has experienced a relative paucity. Only recently, work on SITM has shown that IT executives need to manage an entire strategic management cycle themselves (Müller et al. 2009). However, while these theoretical approaches are grounded in terms of reverting to general management literature, their insights still need to be translated into a method that is applicable to SITM.

Subsequently, our research-in-progress aims at designing a method for strategic positioning in SITM. In this paper, we present the current state of our method’s design. We introduce the method, specifically emphasizing strategic positioning’s systemic dynamics and the social aspects of SITM. These points are based on insights gained from a set of three case studies. We also highlight how both the theoretical input from the literature and our empirical observations were used to design the method. Our research therefore contributes to the understanding of the factors influencing the success of strategic planning in IT management.

We first provide an overview of the theoretical foundations that contribute to our research. After describing our research design, we present an overview of our method’s goals and constituents. We conclude by evaluating what we have learned, providing an outlook of the next research stages, and highlighting our research’s contributions.

## Foundations

### *Strategic IT Management as a Social Task*

SITM is a complex decisional, technical, and social task in a corporate environment (Grover et al. 1993). Consequently, it is important to study SITM from a social perspective to understand, describe, and prescribe with respect to its complex processes (Boynton and Zmud 1987; Galliers 2004). This interpretation leads us to acknowledge the nature of IT strategy as one that the participating individuals largely construct socially in their specific context. A constructivist, interpretive view of the world is required to account for the fact that people think and act in their specific social reality and are active makers of this social reality (Orlikowski and Baroudi 1991; Schwandt 1994). Moreover, actors’ social reality in the SITM domain – their lifeworld – is constantly constructed and reconstructed through their actions and reactions, which are based on their individual interpretations and specific knowledge (Berger and Luckmann 1966). Understanding these realities is important to ensure that the actors’ social reality in the domain is not suppressed or even replaced with an artificial, fictitious reality that the researcher has constructed theoretically (Grathoff 1978). These considerations have two important implications for our research. First, some authors have concluded that there is no single best IT strategy, but that an organization needs to develop a strategy that fits its particular situation or context (Ein-Dor and Segev 1978). Therefore, rather than prescribing strategies, research on SITM should focus on enabling actors to develop these individual strategies. Since contents and perceptions are individual, such an approach will have to focus on allowing actors to integrate their various perceptions and lifeworlds, i.e. a method has to be designed that provides an instrument for doing so. Second, since our method aims at constructing a shared perception of an IT department’s strategic positioning, a shared definition of SITM’s relevant domains or contents of SITM is necessary to enable the actors involved in SITM to relate their individual perceptions and lifeworlds to one another and integrate them. This not only means that these domains should be defined by a common frame of reference, but that the aspects influencing the actors’ lifeworlds and, ultimately, the strategic position will need to be defined when designing a strategic positioning method, too.

### *Methods as Management Tools*

In the context of IS research, the term *method* usually refers to developing and successfully implementing information systems (Baskerville 1996; Brinkkemper 1996). While supporting this view, Hevner et al. (2004) refer to Boland’s (2004) work to show that methods as artifacts can also be found in an organizational, management-oriented context. An organizational method (Baumöl 2006; Kettinger et al. 1997) can be defined as “a collection of problem-

solving [...] [steps] governed by a set of principles and a common philosophy for solving [...] problems” (Checkland 1981). The term *method* is thus attributable to artifacts aimed at establishing certain practices that support the development of a shared perception of an IT department’s strategic position within a corporation. In the context of designing methods, Braun et al. (2005) find that activities or process steps are the most common element of method definitions in the literature. Some of their sources also analyze and introduce roles, techniques, tools, meta-models, and document specifications. They refer to Gutzwiller’s (1994) work for one of the most comprehensive method definitions. In addition to defining the method elements, Gutzwiller shows how the elements relate to one another. His model illustrates that a certain role carries out an activity. Using a defined tool or technique, this activity will produce a result. This result should be compatible with a predefined meta-model to ensure compatibility between the various results along the sequence of steps. Since Gutzwiller’s method definition has been advocated in the literature (Braun et al. 2005; Winter and Schelp 2006) and previously used to construct organizational methods (Baumöl 2006), we will revert to his works for a basic understanding of a method’s principal attributes and elements.

### ***The Process and Contents of Strategic IT Management***

As pointed out above, designing a method for strategic positioning requires an understanding of the domains constituting SITM and of the aspects that influence it. This is also reflected in the academic discussion on SITM, in which a general distinction is made between SITM’s *process* and the *contents*. The former links general research on the process of strategic management (Miller and Cardinal 1994; Mintzberg et al. 2003) to research on IT management in the IS discipline. Studies on the latter highlight many aspects that contribute to the understanding of SITM, for example alignment (Henderson and Venkatraman 1992) and process reengineering (Broadbent et al. 1999). An important approach from the *process* perspective is strategic information systems planning (Lederer and Salmela 1996; Premkumar and King 1991), which mainly relates to the application portfolio (e.g., Ciborra 1991; Doherty et al. 1999). Fewer studies examine the general strategy process behind SITM (e.g., Galliers and Sutherland 1994; Waema and Walsham 1990). To date, the management of IT as an emancipated, yet aligned, part of the corporation seems to be underresearched (Grover and Segars 2005). One of the recent approaches addressing this topic is presented by Müller et al. (2009). They argue that SITM should be able to address the entire cycle of strategic management specific to IT. They furthermore maintain that this cycle consists of strategic planning (where do we want to be?), strategy implementation (how do we get there?), and strategic positioning (where are we today?). In line with the idea of contextualism (Pettigrew 1987) and other approaches to strategy making in IT (e.g., Kovacevic and Majluf 1993), they argue that the latter has to consider an IT department’s internal and external context in addition to corporate strategy and IT’s quantitative baseline. Moreover, Müller et al. (2009) extend their argument by showing how a frame of reference, which structures SITM in a company by providing a common definition of domains and relations, helps to integrate these various aspects. This links their approach to SITM’s *content* realm. Here, strategic planning often refers to the management of a company’s application portfolio (Lederer and Sethi 1988; Segars et al. 1998), information management (Earl 1989), and the role IT plays in a company’s functional context (Smits et al. 2003). One of the most comprehensive frames of reference is suggested by Riempp et al. (2008). As outlined above, such a definition of domains facilitates the exchange of information between the actors participating in SITM. As these considerations by Müller et al. (2009) fit our epistemological considerations regarding the process and content of SITM, we use them as a theoretical basis for the design of our method.

### **Research Design and Field Studies**

Our research design draws on design science research guidelines (Hevner et al. 2004; Peffers et al. 2008) to design an organizational method. Following the idea of engaged scholarship (van de Ven 2007), we chose case studies (Yin 2002) for this paper’s initial method construction. They are an established approach to capture SITM issues in practice (Wu et al. 2006), are well suited to capture the context of organizational topics in IS research (Benbasat et al. 1987), capture rich detail (Lee 1999), and enable an in-depth study of artifacts in a business environment (Hevner et al. 2004). Moreover, we can use guidelines to ensure the quality of our work (Klein and Myers 1999). Through these case studies we made a systematic bottom-up identification of patterns that form the constituent elements of strategic positioning in that they have a significant impact on the positioning’s accuracy and success as perceived by the relevant actors in the field. This corresponds to the guidelines for case-based theory building (Dooley 2002; Eisenhardt 1989; 1991). Overall, the research we have conducted so far comprises the following six steps.

1. *Selection of an analysis framework*: we decided to use Müller et al.’s (2009) framework, since it is the most comprehensive approach to describe a strategic positioning’s general elements and how they relate to one another. It thus provides basic constructs that are relevant for designing a strategic positioning method for SITM.

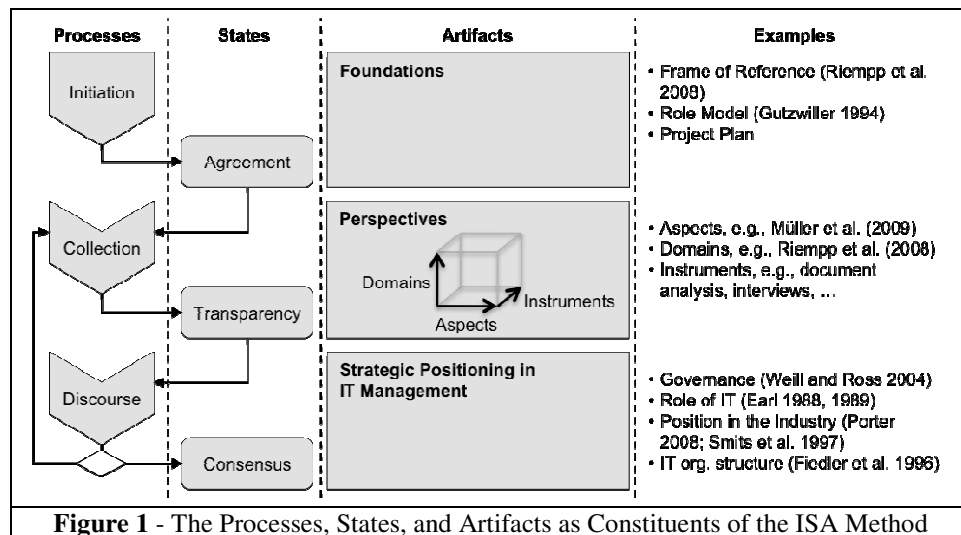
2. *Definition of preliminary constructs*: Eisenhardt (1989) suggests using preliminary constructs in order to concentrate on the relevant events and processes in the field at an early stage. We derived preliminary constructs from two sources: we took elements from Müller et al. (2009) as well as Gutzwiller (1994), thus assuring that we covered both strategic positioning's and method construction's essential elements.
3. *Case selection*: the cases are a convenience sample, as only a limited number of companies allowed us to participate in their confidential strategic planning processes. Nevertheless, the resulting sample (Table 1) allowed interesting observations in the field, given that we were able to stress the variation in our cases.

<i>Table 1 - Profiles of the Case Study Companies</i>			
<i>Characteristics</i>	<i>Case 1</i>	<i>Case 2</i>	<i>Case 3</i>
<i>Industry</i>	Real estate management	Automotive supplier	Auditing company
<i>Turnover / IT Budget [€]</i>	947 m / 44.2 m	6,319 m / 51.5 m	1,470 m / 76.5 m
<i>Employees [FTEs]</i>	6,851	23,288	8,870
<i>IT employees [FTEs]</i>	33 int., 40 ext.	219 int., 0 ext.	243 int., 24 ext.
<i>IT structure</i>	Centralized	Centralized, some functions in decentral business units	Centralized
<i>Initial situation</i>	Company in pre-merger due diligence and IT had to demonstrate value contribution and strategic alignment	Company initiative to strengthen central IT resulted in a strategy development project for the central IT	Assessment of current strategic position was needed to develop an action plan to revise the IT strategy

4. *Data collection*: the studies took place between July 2007 and December 2008, each taking two to five months to complete, depending on the team availability. We were always present in the field, investigating how the project teams approached strategic positioning and strategic planning. Conducting the strategic positioning along with the relevant data analysis steps and interpreting the results was done by the project teams or heavily involved their members. Observing the positioning and planning allowed us to search for the preliminary constructs. This enabled us to ascertain how strategic positioning's results contribute to strategic planning in terms of input for a complete strategy definition as perceived by the project team. In addition, we could identify quality criteria and success factors for strategic positioning, and extend our design beyond the preliminary constructs. We collected data through common field-note protocols, interviews, workshops, surveys, observations, and document analysis techniques. The interview participants were project team members and key stakeholders across all SITM domains and hierarchical levels. This multi-methodological approach (Mingers 2001) is especially valuable in the complex context of IS as a social phenomenon (Kaplan and Duchon 1988). Using our manifold observations (i.e. interviews, surveys, workshops, etc.), we applied data triangulation (Mayring 2001) to assure construct validity. In complex settings such as workshops, two investigators were on site to ensure the reliability of our observations. The observations and interviews were documented as protocols and returned to the informants for comments, adjustment, and approval. Once validated, all the empirical material was included in a field study database.
5. *Within-case analysis and cross-case analysis*: the data analysis and data collection overlapped, allowing us to shift our observational focus as we gained new insights during the analysis. At the end of each case, we compared our observations against the then current version of our method design and conducted a within-case analysis. This led to a detailed write-up of each case (Argyris et al. 1985; Baskerville 1999; Yin 2002). Furthermore, our analysis, which contained both our observations and the feedback gathered during and after each study, was aimed at determining the general approach to strategic positioning. The analysis therefore determined the constructs that were helpful and viable, capturing that which went well, needed improvement, or had to be added to our method's design. *The cross-case analysis* was based on a detailed search for similarities and differences between the three cases. Patterns we found were regarded as promising elements for our strategic positioning method and subsequently considered for our method's refined design. Overall, the cases helped us identify the method's constituent elements step by step, while each individual case revealed the underlying mechanisms (Pentland 1999).
6. *Method design as theory building*: the findings from the case studies were used for the method's initial design, constituting our first design cycle (Hevner 2007). Throughout the case analysis, we came across patterns that are relevant for strategic positioning's success, but which have not been discussed in the literature. Based on the case analyses, our method's design was therefore adapted or extended. Patterns that strongly influence strategic positioning's success, but were only observed in one case, were analyzed in greater detail and discussed with the project teams. Subsequently, they were either included in or excluded from the method design.

## The Information Strategy Assessment Method

Our Information Strategy Assessment (ISA) method has been designed around three processes that lead to certain social states in a group: (1) *initiation*, which leads to *agreement* resulting in the project *foundations*; (2) *collection*, which leads to *transparency* resulting in the *perspectives* on SITM; and (3) *discourse*, which leads to *consensus* on the IT department's *strategic positioning*. In the following section, we discuss the method in more detail. Focusing on the process perspective, we show the elements of the method, discuss their relations, and provide examples from our empirical work and from the literature. We focus on processes since they are the most common method element in the literature (Braun et al. 2005) and the practical application of the method is focused on the processes that explain what should be done. Figure 1 provides an overview of the ISA method.



Beyond the processes, the figure shows that each of them leads to a group state, which results in certain observable artifacts as the processes' outputs. These outputs comprise most of the preliminary constructs we derived prior to our case studies. However, and contrary to our initial assumptions, the preliminary constructs were less relevant for our method's success. When we extended our design, the field observations led us to adopt a layered interpretation of our method: while the artifacts are necessary for strategic positioning's content-oriented work, the systemic aspects, i.e. processes and group states, were most relevant. Although artifacts, such as tools and frameworks, have certain requirements, group dynamics and group states seem most important in terms of the legitimacy and sustainability of the strategic positioning. This is supported by our observation that, at certain points, it is necessary to "stabilize" the group state and to ensure that the entire group acknowledges it. In Case 1, one of the two leading IT executives only joined the process at a later stage. This forced us to go back and establish the required group state to ensure that all group members shared the insights generated. In Case 2, the project involvement was limited and the results had only been created by a part of the project team. Great effort was required to communicate these results and to ensure that all the relevant actors supported them.

### Initiation

The *initiation* process instigates the positioning initiative. An initial step is to put together a project team that carries out the strategic positioning. The team should consist of actors who represent the relevant SITM fields of action. Before any group processes take place, the actors' individual perspectives on SITM in the company should be captured through, for example, interviews. In terms of group processes, the initiation will familiarize the group with the positioning approach, i.e. the steps, activities, and goals. Furthermore, the project team should agree on the overall project objective and verify that specific actors in the team represent all relevant aspects of corporate IT.

Our field studies helped us make two principal design decisions regarding this process. The first one was to include up-front interviews in the method. This is an important step to ensure that the actors' unbiased information is captured and can be used when conflicting information is contrasted during the discourse process. The importance of including this step in the method is evidenced in Case 3. The project team's members found it difficult to describe how the strategic positioning process had changed their perception. This made it difficult for them to illustrate how

information gathered during the joint process would potentially contradict or fit their initial perceptions. This could prevent them from buying into the results that the positioning project can achieve. In addition, their perceptions are an important source of information on how the IT organization structures the SITM topic. Such structures are the basis for determining SITM's principal domains. The latter are an important basis for either developing an organization's own frame of reference, or selecting an existing one (e.g., Riempp et al. 2008) that fits their perception of SITM. This frame of reference helps to structure and facilitate the team's communication as well as data integration. The second design decision was that the team needed to be complete in terms of representing all relevant SITM decision domains. In Case 1, the project perspective was not adequately covered, resulting in the need to reassess the department's strategic position at a later project stage.

The *tools* that can be used in this process as part of the preliminary interviews are, for example, SWOT (Andrews 1971; Johnson and Scholes 1989) or CSF analyses (Rockart 1979). Group workshops should host a discussion on the goals, frame of reference, and the participating actors' expectations.

The *goal* of the *initiation* process is to achieve a group state of *agreement*. This state is reached when the group has agreed on the relevant fields of action, a project team has been put together, in which specific actors represent all these fields, and the goals of the positioning project along with the actors' expectations have been documented.

The *outputs* of this process are the *foundations* of the strategic positioning project. In terms of artifacts, this process will produce (1) a frame of reference that structures the relevant fields of action (Müller et al. 2009), (2) a role model which translates the frame of reference into actors participating in the project (Gutzwiller 1994), and (3) a project plan that documents the project goals and expectations, as well as its timeline and structure.

## Collection

The *collection* process is supposed to develop a baseline that incorporates all perspectives relevant to SITM. Regarding our cases, we found that these perspectives can be structured into *domains* and *aspects*. *Domains* cover the various aspects relevant to SITM, for example, application management, governance, or project portfolio management, and are generally depicted by frames of reference for SITM's content (e.g., Earl and Feeny 2000; Riempp et al. 2008). Including these into ISA allows us to account for SITM's content realm. The other perspective, labeled *aspects*, describes the constituents of strategic positioning (Brown 2004; Müller et al. 2009). For example, Müller et al. (2009) point out that more than just "hard" data are required on the company's KPIs. By examining the literature on strategic positioning in general management, they suggest that hard data need to be contextualized to yield meaningful results. This could include both external and internal influences on strategic planning in IT (Sabherwal and King 1995). It is particularly important to consider the context, given SITM's social nature and the context's impact on the individual and collective interpretations of factors that influence SITM in our cases. Building on Stasser and Titus (1985), Dennis (1996) suggests that some information is initially unique to individual actors in group decision processes. Making this unique information common to all group members is the collection process's key goal.

Experiences in the field all illustrate the relevance of contextual information. The project manager in Case 1 observed that participation in prior benchmarking initiatives did not produce a sustainable outcome. He stated that, while the reports looked good on his management's desk, they failed to reveal anything on the department's relative competitive position. A project team member from the company's application management attributed this to the unique context of the IT department. This introduced the idea that a benchmarking's results alone could not determine the department's strategic position. The two other cases supported the conclusion that context is important when relating information that compares the own department to external references to internal management decisions. The competitive environment (external) and the corporate strategy (internal) are particularly important in determining the department's strategic position correctly. In Case 2, the role of the central IT department in comparison with the decentralized units was a unique factor that differentiated it. None of the departments in the peer group they compared themselves to had a similar structure, leading to important adjustments in interpreting the data.

In our case studies, the departments employed the following *tools*: benchmarking, interviews with the team members and relevant stakeholders (e.g., suppliers, business unit leaders, corporate management, or key users), the analysis of corporate documents (e.g., IT strategy or corporate strategy), and the undertaking of workshops with the team.

The *collection* process's *goal* was to establish *transparency* regarding all the relevant SITM perspectives in the group. Beyond creating a holistic documentation of the main aspects constituting the IT department's strategic positioning, it was important to communicate this information within the group. This was necessary to ensure that all the

relevant information could be interpreted from all relevant points of view. Moreover, the team had to agree that all the relevant stakeholders had been identified and that their inputs have been captured and were accounted for.

The *outputs* of this process are *perspectives* on SITM. These *perspectives* can be visualized as a “cube” of information. Beyond the two principal dimensions introduced above, i.e. (1) *domains* as SITM’s fields of action as derived from the frame of reference, and (2) *aspects* relevant to strategic positioning (Müller et al. 2009), our studies have shown that the various *instruments* should also be considered. Case 2 illustrates this. While the document analysis showed that IT strategy had to be defined on a central, corporate level, interviews with the stakeholders showed that the individual business units, each of which had decentralized IT units, needed to define their own IT strategies to adapt to their specific competitive environment. This individual need was mainly due to the different roles IT played in the different markets the company served. Only a combination of different instruments, such as interviews and document analyses in this case, allowed the identification of conflicting information on the IT strategy.

## Discourse

The final ISA process highlights discrepancies in the information captured or in conflicting interpretations of this information and attempts to resolve them. Such discrepancies or conflicts arise from the different perspectives in the “cube” as illustrated by Case 2. Once these conflicts and discrepancies have been identified, the group needs to work towards resolving them. Afterwards, they need to agree on what their strategic position is. In addition, there is a possibility that there will be no consensus. In this case, the group will have to go back to the collection process to generate additional data or context to achieve consensus. Such an active discourse on the interpretation of the various perspectives of SITM is a good way of incorporating feedback from the various actors involved. This increases the quality of strategic planning in IT (Baker 1995). We specifically acknowledge the many ways in which a group can achieve consensus: the discourse on the information collected can lead to a shared perception, information can be deliberately disregarded as strategically irrelevant, consensus can be imposed by management mandate, or by recognizing discrepancies and using them as a basis to derive action plans as part of the department’s strategic planning.

All these approaches to achieving consensus were observed in the field. It is of utmost importance to make implicit assumptions explicit, since these are needed to correctly interpret data or advocate a conflicting point of view. The group process then shows which of the interpretations is valid, thus contributing to the group’s reconstruction of social reality. This suggests that truth is based on consensus (Apel 1980; Habermas 2005; Kirkham 1992) – an interpretation that underlines SITM’s social, constructivist nature. In all three cases, project team members described the joint (re-)construction of social reality as very beneficial. In Case 3, an IT architect maintained that he had never known how his tasks related to the other SITM domains in the company, but then had an understanding of what the others did. This improved the IT architecture’s overall alignment with the individual domains contributing to it (e.g., application portfolio management and infrastructure management). The loopback to the collection process is also empirically grounded. In Case 3, for example, some aspects of the application and security architecture needed to be reassessed by collecting additional data. As mentioned earlier, the initial omission of the project perspective in Case 1 led to a reassessment and reinterpretation of the data once the respective actors were included in the project team.

The *tools* used in the cases were mainly workshops to identify the discrepancies in the “cube’s” perspectives and to host the discussions that led to a shared perception of the IT department’s current strategic position.

This process’s *goal* is the group state of *consensus*. It concludes the joint construction of this part of SITM as the actors’ social reality – their lifeworld. This *consensus* refers to the IT department’s strategic position, i.e. giving all actors involved a shared perception of their department’s current position in its internal and external context.

The *output* of this phase is the department’s *strategic positioning* (Müller et al. 2009). It can be characterized as a full and shared perception of the relevant factors influencing strategizing in IT. Examples of such factors are, among others, the governance structures employed in IT as well as at the interface to the company’s business units and corporate management (Weill and Ross 2004), the role IT plays within the corporation (Earl 1988; 1989), the department’s and the organization’s general position in the industry (Porter 2008; Smits et al. 1997), and IT’s organizational structure (Fiedler et al. 1996). In addition, this shared positioning serves as a basis for decision making in the department’s strategic planning process.

An example of this support of strategic planning as part of SITM is that the strategic position will allow IT managers to develop a set of actions that may help improve strategy attainment, or can be used to revise or adapt their IT strategy. This is supported by the fact that all our case study hosts previously participated in extensive and expensive benchmarking initiatives prior to using a structured approach to strategic positioning based on the ISA method.



However, none of them could use only the benchmarking information as part of their strategic planning process. On the other hand, projects employing the ISA method always generated strategic initiatives or strategy revisions.

## **Limitations and Future Research**

To correctly interpret our study's results, some limitations need to be taken into account. First, the current version of our method seems applicable only to internal, centralized IT departments. The consolidation of multiple entities or decentralized units of separate legal entities proved to be difficult during the collection phase. This indicates that positioning requires an IT entity and its relevant context to be clearly delineated. In Case 2, the distributed nature of IT specifically supported this adjustment to ensure our method's external validity. Second, limitations arise from our presence in the field, since this potentially biased the actors' behavior. We aimed to address this by using the principles suggested by Klein and Myers's (1999). Third, the convenience sample limits the method's generalizability. However, we maintain that, despite the variation in the cases, the method's stability could indicate otherwise.

As a work-in-progress, we concentrated on the method's construction. A structured evaluation of the artifact needs to be done to develop the artifact further. The evaluation of an organizational method is a challenging task, since measuring its "success" in the constructivist, social world of SITM is difficult. As clear evaluation strategies are not yet available, one of the next steps in our research will be to investigate current approaches to and aspects of artifact evaluation (Pries-Heje et al. 2008; Rosemann and Vessey 2008). We currently plan three distinct approaches to further refine our method's design in additional design science cycles (Hevner 2007): (1) an expert evaluation of our method based on a set of interviews, which will determine the method's understandability, its ability to support the IT strategy process, as well as general quality criteria, (2) action research (Baskerville 1999; Checkland and Holwell 2007) to introduce our method to the field and collaboratively reflect on it with additional case study participants, which will help us to refine our method's design in the context of its application, and (3) using literature on organizational methods (e.g., Baumöl 2006; Kettinger et al. 1997) or on general models for methods (e.g., Braun et al. 2005; Gutzwiller 1994) for a theoretical evaluation, i.e. to determine whether all the relevant constituents have been identified and the required relations have been modeled.

## **Contributions**

The ISA method presented in this study supports establishing a strategic position as a basis for the strategic planning process in IT. In particular, it acknowledges the social nature of the underlying phenomenon of strategy making as part of SITM. The feedback from the teams with whom we worked leads us to emphasize a few aspects that will inform IT executives who conduct a strategic positioning. Our current experiences in the field suggest that our method is a valuable tool for developing a meaningful strategic positioning that will have a positive impact on the success of strategic planning in SITM. Moreover, the continuous involvement of the corporate IT department's key actors allows them to participate in the joint social (re-)construction of their current strategic position, which increases their acceptance of the conclusions drawn as a basis for the strategic planning process. Moreover, our method requires the involvement of relevant senior executives. This positively impacts strategic IS planning's success (Basu et al. 2002). In addition, our method acknowledges the organizational context's importance in strategic planning (Wang and Tai 2003). Extending this argument, we assume that the same applies to strategic positioning in SITM. Also using a frame of reference that adequately reflects the IT department's context is a success factor of using the ISA method. A case in point is the revision of the IT strategy as a result of using the ISA method in Case 3.

Arguments for our method's success are also supported by the literature, which shows that a more comprehensive and sophisticated planning process in SITM produces more useful outputs and will increase the likelihood of strategy implementation (Premkumar and King 1991; Tang and Tang 1996). However, this study extends our understanding of strategizing in IT (Doherty et al. 1999; Segars and Grover 1998) by adding a social perspective, thus connecting IS research on strategizing in IT to research on work groups' and teams' effectiveness (Delarue et al. 2008; Guzzo and Dickson 1996; Kozlowski and Ilgen 2006). Overall, our work contributes to IS research in two ways. First, our observations suggest that using the processes and states included in the ISA method, specifically accounting for social dynamics, will increase both the content quality as well as the implementation success of the IT strategy. Second, by proposing a method that supplies IT executives with an approach to position themselves in their relevant context, ISA illustrated how the overall approach to IT management has changed. Future research should investigate whether characteristic planning styles (e.g., Byrd et al. 1995; Earl 1993; Sabherwal and King 1995) are still applicable in this new environment and how adding the social perspective impacts these planning approaches. In addition, accounting for social dynamics could also impact the design of decision or group support systems (Dennis 1996).

## References

- Andrews, K.R. 1971. *The Concept of Corporate Strategy*. Homewood, IL, USA: Dow Jones-Irwin.
- Apel, K.-O. 1980. *Towards a Transformation of Philosophy*. London, UK & Boston, MA, USA: Routledge Kegan & Paul.
- Argyris, C., Putnam, R., and McLain Smith, D. 1985. *Action Science: Concepts, Methods and Skills for Research and Intervention*, (1. ed.). San Francisco, CA, USA: Jossey-Bass.
- Baker, B. 1995. "The Role of Feedback in Assessing Information Systems Planning Effectiveness," *The Journal of Strategic Information Systems* (4:1), March 1995, pp. 61-80.
- Baskerville, R. 1996. "Structural Artefacts in Method Engineering," in: *Method Engineering: Principles of Method Construction and Tool Support*, S. Brinkkemper, K.J. Lyytinen and R.J. Welke (eds.). London, UK et al.: Springer, pp. 8-28.
- Baskerville, R.L. 1999. "Investigating Information Systems with Action Research," *Communications of the Association for Information Systems* (2:19).
- Basu, V., Hartono, E., Lederer, A.L., and Sethi, V. 2002. "The Impact of Organizational Commitment, Senior Management Involvement, and Team Involvement on Strategic Information Systems Planning," *Information & Management* (39:6), May 2002, pp. 513-524.
- Baumöl, U. 2006. "Methodenkonstruktion für das Business/IT Alignment " *Wirtschaftsinformatik* (48:5), pp. 314-322.
- Benbasat, I., Goldstein, D.K., and Mead, M. 1987. "The Case Research Strategy in Studies of Information Systems," *MIS Quarterly* (11:3), September 1987, pp. 369-386.
- Berger, P.L., and Luckmann, T. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*, (1. ed.). Garden City, NY, USA: Doubleday.
- Boland, R.J. 2004. "Design in the Punctuation of Management Action," in: *Managing as Designing*, R.J. Boland and F. Collopy (eds.). Stanford, CA, USA: Stanford University Press, pp. 106-112.
- Boynton, A.C., and Zmud, R.W. 1987. "Information Technology Planning in the 1990's: Directions for Practice and Research," *MIS Quarterly* (11:1), March 1987, pp. 59-71.
- Braun, C., Wortmann, F., Hafner, M., and Winter, R. 2005. "Method Construction - a Core Approach to Organizational Engineering," in: *2005 ACM Symposium on Applied Computing*. Santa Fe, NM, USA: ACM Press, pp. 1295-1299.
- Brinkkemper, S. 1996. "Method Engineering: Engineering of Information Systems Development Methods and Tools," *Information and Software Technology* (38:4), pp. 275-280.
- Broadbent, M., Weill, P., and Clair, D.S. 1999. "The Implications of Information Technology Infrastructure for Business Process Redesign," *MIS Quarterly* (23:2), June 1999, pp. 159-182.
- Brown, I.T.J. 2004. "Testing and Extending Theory in Strategic Information Systems Planning through Literature Analysis," *Information Resources Management Journal* (17:4), pp. 20-48.
- Byrd, T.A., Sambamurthy, V., and Zmud, R.W. 1995. "An Examination of IT Planning in a Large, Diversified Public Organization," *Decision Sciences* (26:1), January / February 1995, pp. 49-73.
- Checkland, P. 1981. *Systems Thinking, Systems Practice*, (1. ed.). Chichester, UK: John Wiley & Sons.
- Checkland, P., and Holwell, S. 2007. "Action Research: Its Nature and Validity," in: *Information Systems Action Research*, N. Kock (ed.). New York, NY, USA: Springer, pp. 3-17.
- Ciborra, C.U. 1991. "From Thinking to Tinkering: The Grass Roots of Strategic IS," in: *12. International Conference on Information Systems (ICIS 1991)*, J.I. DeGross, I. Benbasat, G. DeSanctis and C.M. Beath (eds.). New York, NY, USA: Association for Information Systems, pp. 283-291.
- Delarue, A., Hootegeem, G.V., Procter, S., and Burrige, M. 2008. "Teamworking and Organizational Performance: A Review of Survey-Based Research," *International Journal of Management Reviews* (10:2), 2007, pp. 127-148.
- Dennis, A.R. 1996. "Information Exchange and Use in Group Decision Making: You Can Lead a Group to Information, but You Can't Make It Think," *MIS Quarterly* (20:4), December 1996, pp. 433-457.
- Doherty, N.F., Marples, C.G., and Suhaimi, A. 1999. "The Relative Success of Alternative Approaches to Strategic Information Systems Planning: An Empirical Analysis," *The Journal of Strategic Information Systems* (8:3), September 1999, pp. 263-283.
- Dooley, L.M. 2002. "Case Study Research and Theory Building," *Advances in Developing Human Resources* (4:3), August 2002, pp. 335-354.

- Earl, M.J. 1988. "Formulation of Information Systems Strategies: Emerging Lessons and Frameworks," in: *Information Management: The Strategic Dimension*, M.J. Earl (ed.). Oxford, UK: Oxford University Press, pp. 157-174.
- Earl, M.J. 1989. *Management Strategies for Information Technology*. London, UK: Prentice Hall.
- Earl, M.J. 1993. "Experiences in Strategic Information Systems Planning," *MIS Quarterly* (17:1), March 1993, pp. 1-24.
- Earl, M.J., and Feeny, D. 2000. "How to Be a CEO for the Information Age," *Sloan Management Review* (41:2), Winter 2000, pp. 11-23.
- Earl, M.J., and Sampler, J.L. 1998. "Market Management to Transform the IT Organization," *Sloan Management Review* (39:4), Summer 1998, pp. 9-17.
- Ein-Dor, P., and Segev, E. 1978. "Strategic Planning for Management Information Systems," *Management Science* (24:15), November 1978, pp. 1631-1641.
- Eisenhardt, K.M. 1989. "Building Theories from Case Study Research," *Academy of Management Review* (14:4), pp. 532-550.
- Eisenhardt, K.M. 1991. "Better Stories and Better Constructs: The Case for Rigor and Comparative Logic," *Academy of Management Review* (16:3), July 1991, pp. 620-627.
- Feridun, M., and Rodosek, G.D. 2003. "Management of IT Services," *Computer Networks* (43:1), September 2003, pp. 1-2.
- Fiedler, K.D., Grover, V., and Teng, J.T.C. 1996. "An Empirically Derived Taxonomy of Information Technology Structure and Its Relationship to Organizational Structure," *Journal of Management Information Systems* (13:1), Summer 1996, pp. 9-34.
- Galliers, R.D. 2004. "Reflections on Information Systems Strategizing," in: *The Social Study of Information and Communication Technology: Innovation, Actors, and Contexts*, C. Avgerou, C. Ciborra and F. Land (eds.). Oxford, UK: Oxford University Press, pp. 231-262.
- Galliers, R.D., and Sutherland, A.R. 1994. "Information Systems Management and Strategy Formulation: Applying and Extending the 'Stages of Growth' Concept " in: *Strategic Information Management: Challenges and Strategies in Managing Information Systems* R.D. Galliers and B.S.H. Baker (eds.). Oxford, UK: Butterworth-Heinemann, pp. 91-117.
- Grathoff, R. (ed.) 1978. *The Theory of Social Action: The Correspondence of Alfred Schutz and Talcott Parsons*. Bloomington, IN, USA: Indiana University Press.
- Grover, V., and Segars, A.H. 2005. "An Empirical Evaluation of Stages of Strategic Information Systems Planning: Patterns of Process Design and Effectiveness," *Information & Management* (42:5), July 2005, pp. 761-779.
- Grover, V., Seung-Ryul, J., Kettinger, W.J., and Lee, C.C. 1993. "The Chief Information Officer: A Study of Managerial Roles," *Journal of Management Information Systems* (10:2), Fall 1993, pp. 107-130.
- Gutzwiller, T. 1994. *Das CC RIM-Referenzmodell für Den Entwurf von Betrieblichen, Transaktionsorientierten Informationssystemen*, (1. ed.). Heidelberg, Germany: Physica.
- Guzzo, R.A., and Dickson, M.W. 1996. "Teams in Organizations: Recent Research on Performance and Effectiveness," *Annual Review of Psychology* (47:1), February 1996, pp. 307-338.
- Habermas, J. 2005. *Truth and Justification*, (1. ed.). Cambridge, MA, USA: MIT Press.
- Henderson, J.C., and Venkatraman, N. 1992. "Strategic Alignment: A Model for Organizational Transformation through Information Technology," in: *Transforming Organizations*, T.A. Kochan and M. Useem (eds.). Oxford: Oxford University Press, pp. 97-117.
- Hevner, A.R. 2007. "A Three Cycle View of Design Science Research," *Scandinavian Journal of Information Systems* (19:2), pp. 87-92.
- Hevner, A.R., March, S.T., Park, J., and Ram, S. 2004. "Design Science in Information Systems Research," *MIS Quarterly* (28:1), March 2004, pp. 75-105.
- Johnson, G., and Scholes, K. 1989. *Exploring Corporate Strategy*, (2. rev. ed.). New York, NY, USA: Prentice Hall.
- Kaplan, B., and Duchon, D. 1988. "Combining Qualitative and Quantitative Methods in Information Systems Research: A Case Study," *MIS Quarterly* (12:4), December 1988, pp. 571-586.
- Kettinger, W.J., Teng, J.T.C., and Guha, S. 1997. "Business Process Change: A Study of Methodologies, Techniques, and Tools," *MIS Quarterly* (21:1), March 1997, pp. 55-98.
- Kirkham, R.L. 1992. *Theories of Truth*, (1. ed.). Cambridge, MA, USA: MIT Press.
- Klein, H.K., and Myers, M.D. 1999. "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems," *MIS Quarterly* (23:1), March 1999, pp. 67-93.
- Kovacevic, A., and Majluf, N. 1993. "Six Stages of IT Strategic Management," *Sloan Management Review* (34:4), Summer 1993, pp. 77-87.

- Kozlowski, S.W.J., and Ilgen, D.R. 2006. "Enhancing the Effectiveness of Work Groups and Teams," *Psychological Science in the Public Interest* (7:3), December 2006, pp. 77-124.
- Lederer, A.L., and Salmela, H. 1996. "Toward a Theory of Strategic Information Systems Planning," *The Journal of Strategic Information Systems* (5:3), September 1996, pp. 237-253.
- Lederer, A.L., and Sethi, V. 1988. "The Implementation of Strategic Information Systems Planning Methodologies," *MIS Quarterly* (12:3), September 1988, pp. 445-461.
- Lee, A. 1999. "A Set of Principles for Conducting and Evaluating Interpretive Field Studies in Information Systems," *MIS Quarterly* (23:1), March 1999, p. xvii.
- Mayring, P. 2001. "Combination and Integration of Qualitative and Quantitative Analysis," *Forum: Qualitative Social Research* (2:1), February 2001.
- Miller, C.C., and Cardinal, L.B. 1994. "Strategic Planning and Firm Performance: A Synthesis of More Than Two Decades of Research," *Academy of Management Journal* (37:6), pp. 1649-1665.
- Mingers, J. 2001. "Combining IS Research Methods: Towards a Pluralist Methodology," *Information Systems Research* (12:3), September 2001, pp. 240-259.
- Mintzberg, H., Lampel, J., Quinn, J.B., and Ghoshal, S. 2003. *The Strategy Process - Concepts, Contexts, Cases*, (4. ed.). Upper Saddle River, NJ, USA: Pearson Education.
- Müller, B., Ahlemann, F., and Riempp, G. 2009. "A Framework for Strategic Positioning in IT Management," in: 9. *Internationale Tagung Wirtschaftsinformatik (WI 2009)*, H.R. Hansen, D. Karagiannis and H.-G. Fill (eds.). Vienna, Austria: Österreichische Computer Gesellschaft, pp. 25-34.
- Orlikowski, W.J., and Baroudi, J.J. 1991. "Studying Information Technology in Organizations: Research Approaches and Assumptions," *Information Systems Research* (2:1), March 1991, pp. 1-28.
- Peffer, K., Tuunanen, T., Rothenberger, M.A., and Chatterjee, S. 2008. "A Design Science Research Methodology for Information Systems Research," *Journal of Management Information Systems* (24:3), Winter 2008, pp. 45-77.
- Pentland, B.T. 1999. "Building Process Theory with Narrative: From Description to Explanation," *Academy of Management Review* (24:4), October 1999, pp. 711-724.
- Pettigrew, A.M. 1987. "Context and Action in the Transformation of the Firm," *Journal of Management Studies* (24:6), November 1987, pp. 649-670.
- Porter, M.E. 2008. "The Five Competitive Forces That Shape Strategy," *Harvard Business Review* (86:1), January 2008, pp. 78-93.
- Premkumar, G., and King, W.R. 1991. "Assessing Strategic Information Systems Planning," *Long Range Planning* (24:5), October 1991, pp. 41-58.
- Pries-Heje, J., Baskerville, R., and Venable, J.R. 2008. "Strategies for Design Science Research Evaluation," in: 16. *European Conference on Information Systems (ECIS 2008)*, W. Golden, T. Acton, K. Conboy, H. van der Heijden and V.K. Tuunainen (eds.). Galway, Ireland: National University of Ireland Galway.
- Riempp, G., Müller, B., and Ahlemann, F. 2008. "Towards a Framework to Structure and Assess Strategic IT/IS Management," in: 16. *European Conference on Information Systems (ECIS 2008)*, W. Golden, T. Acton, K. Conboy, H. van der Heijden and V.K. Tuunainen (eds.). Galway, Ireland: pp. 2484-2495.
- Rockart, J.F. 1979. "Chief Executives Define Their Own Data Needs," *Harvard Business Review* (57:2), March / April 1979, pp. 81-93.
- Rosemann, M., and Vessey, I. 2008. "Toward Improving the Relevance of Information Systems Research to Practice: The Role of Applicability Checks," *MIS Quarterly* (32:1), March 2008, pp. 1-22.
- Sabherwal, R., and King, W.R. 1995. "An Empirical Taxonomy of the Decision- Making Processes Concerning Strategic Applications of Information Systems," *Journal of Management Information Systems* (11:4), Spring 1995, pp. 177-214.
- Schwandt, I.A. 1994. "Constructivist, Interpretivist Approaches to Human Inquiry," in: *Handbook of Qualitative Enquiry*, N.K. Denzin and Y.S. Lincoln (eds.). Thousand Oaks, CA, USA: Sage, pp. 11-137.
- Segars, A.H., and Grover, V. 1998. "Strategic Information Systems Planning Success: An Investigation of the Construct and Its Measurement," *MIS Quarterly* (22:2), June 1998, pp. 139-163.
- Segars, A.H., Grover, V., and Teng, J.T.C. 1998. "Strategic Information Systems Planning: Planning System Dimensions, Internal Coalignment, and Implications for Planning Effectiveness," *Decision Sciences* (29:2), Spring 1998, pp. 303-345.
- Smits, M.T., van der Poel, K.G., and Ribbers, P.M.A. 1997. "Assessment of Information Strategies in Insurance Companies in the Netherlands," *The Journal of Strategic Information Systems* (6:2), June 1997, pp. 129-148.

- Smits, M.T., van der Poel, K.G., and Ribbers, P.M.A. 2003. "Assessment of Information Strategies in Insurance Companies," in: *Strategic Information Management*, R.D. Galliers and D.E. Leidner (eds.). Oxford: Butterworth-Heinemann, pp. 64-88.
- Stasser, G., and Titus, W. 1985. "Pooling of Unshared Information in Group Decision Making: Biased Information Sampling During Discussion," *Journal of Personality & Social Psychology* (48:6), June 1985, pp. 1467-1478.
- Tang, J.E., and Tang, M.T. 1996. "A Study of Information Systems Planning and Its Effectiveness in Taiwan," *International Journal of Information Management* (16:6), December 1996, pp. 429-436.
- van de Ven, A.H. 2007. *Engaged Scholarship: A Guide for Organizational and Social Research*, (1. ed.). Oxford, UK: Oxford University Press.
- Waema, T.M., and Walsham, G. 1990. "Information Systems Strategy Formulation," *Information & Management* (18:1), January 1990, pp. 29-39.
- Wang, E.T.G., and Tai, J.C.F. 2003. "Factors Affecting Information Systems Planning Effectiveness: Organizational Contexts and Planning Systems Dimensions," *Information & Management* (40:4), March 2003, pp. 287-303.
- Weill, P., and Ross, J.W. 2004. *IT Governance: How Top Performers Manage IT Decision Rights for Superior Results*. Boston, MA, USA: Harvard Business School Press.
- Weiss, J.W., Thorogood, A., and Clark, K.D. 2006. "Three IT-Business Alignment Profiles: Technical Resource, Business Enabler, and Strategic Weapon," *Communications of the Association for Information Systems* (18:33), pp. 676-691.
- Winter, R., and Schelp, J. 2006. "Reference Modeling and Method Construction: a Design Science Perspective," in: *Symposium on Applied Computing*. Dijon, France: ACM Press, pp. 1561-1562.
- Wu, W.W., Lin, S.-H., Cheng, Y.-Y., Liou, C.-H., Wu, J.-Y., Lin, Y.-H., and Wu, F.H. 2006. "Changes in MIS Research: Status and Themes from 1989 to 2000," *International Journal of Information Systems and Change Management* (1:1), pp. 3-35.
- Yin, R.K. 2002. *Case Study Research: Design and Methods*, (3. ed.). Thousand Oaks, CA, USA et al.: Sage Publications.